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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/442,095	11/17/1999	CHONG-SAM CHUNG	1349.1016/GP	5416

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EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 06/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/442,095

Applicant(s)

CHUNG ET AL

Examiner

Aristotelis M Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

Applicants' response of 6/11/02 has been considered with the following results.

1. Applicants' election with traverse of Group I (claims 1-17) in Paper No. 6 dated (6/11/02) is acknowledged. The traversal is on the ground(s) that it is improper because:

- a) the inventions are closely related:
- b) preserve unity of invention
- c) avoid any possible double patenting issue
- d) no references have been shown any necessity for restriction
- e) classification is not conclusive on the question of restriction
- f) no undue burden on examiner

This is not found persuasive because

- a) even closely related inventions can be distinct – MPEP 808.02;
- b) unity of invention is not of moment in US PTO practice:
- c) IF APPLICANTS CAN CONVINCE THE EXAMINER THAT THE INVENTIONS of Group I and II are OBVIOUS OVER ONE ANOTHER, then the restriction REQUIREMENT WOULD BE WITHDRAWN
- d) No need to show any references with respect to a showing of necessity to restrict
- e) Classification CAN BE RELIED upon to show why related inventions are distinct as stated in MPEP 806.05- c -.
- f) Undue burden is demonstrated by the divergent fields of search.

**The requirement is still deemed proper and is therefore made FINAL.**

Claims 18 and 19 are WITHDRAWN FROM CONSIDERATION.

### *Specification*

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

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***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

4. The information disclosure statement filed 4/24/02 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1, 2, 6, 7, 13, 14 and 16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Finegan considered with Maeda et al.

With respect to independent claim 1: Finegan depicts an optical pu having a first and second laser light source – (laser diodes – see col. 3 lines 25 plus), an optical projecting system (elements 42 & 44 for instance), optical detector (22), and optical converter (elements 16) see figure 1 and the disclosure drawn thereto.

In the above analysis, as disclosed in the above document the optical detector detects reflected light from the record. The examiner interprets this as meeting the claimed detecting the first and second laser beams as claimed. Additionally, the examiner interprets the detector in Finegan as a photodiode.

Under 103 considerations, if applicants' can convince the examiner that such is not the case, then the examiner would rely <sup>on</sup> Maeda et al which teaches the ability of having a further splitter ability to separate returning reflected light from a record medium and detect such accordingly and a photodetector/photodiode. Also, Maeda et al teaches the use of a holographic lens in his system for its inherent use.

It would have been obvious to modify the reference of Finegan with the above teaching from Maeda et al, motivation is to separately detect the returning light *from separate light sources.*

With respect to independent claim 13, this requires three additional elements, a driving section, a signal processing section and a controlling section. The examiner considers these elements as well known in this environment and Official notice is taken thereof.

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It would have been obvious to modify the reference of Finegan or Finegan & Maeda et al with the acknowledged prior art in order to use the optical pu in an optical recording/reproducing system and access the appropriate segments/sections desired by a user.

The limitations of claims 14 and 16 are considered met for the reasons stated above with respect to claims 2 and 6.

10. Claims 1, 2, 6, 7, 13, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art (either figure 1 or 2 as submitted) further considered with Maeda et al.

The acknowledged prior art depicts an optical pu device with a single laser source.

The ability of having the two light beams focused/projected onto a single layer of an optical record in this environment is taught by Maeda et al. Although Maeda et al uses a converter – element 2 to provide for the second light source, alternative ability such as plural singular light sources, each set at difference wavelengths is also taught by Maeda et al – see col. 4 lines 4, lines 10-13. Additionally, the examiner interprets the photodetector in Maeda et al as a photodiode (claim 6). Also, Maeda et al uses a holographic lens in his system for its inherent use.

It would have been obvious to modify the reference of the acknowledged prior art with the additional teachings from Maeda et al to provide for separate laser light sources at difference wavelengths, motivation is to provide for a dual wavelength optical pu device.

With respect to independent claim 13, this requires three additional elements, a driving section, a signal processing section and a controlling section. The examiner considers these elements as well known in this environment and Official notice is taken thereof.

Dependent claims 14 and 16 are also rejected for the reasons stated with respect to claims 2 and 6 above.

11. Claims 3, 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 as stated in paragraphs 9 and 10 above, and further in view of Official notice/acknowledge prior art

Claim 3 recites a second collimating lens, e.g. one for each laser light source. Although the cited prior art (Official notice) only depicts a single collimating lens, the ability of providing for two, one for each

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laser light source is considered merely a duplication of parts, with no unexpected results occurring there from. Additionally, the acknowledged prior art depicts the use of a prism in this environment for its inherent function.

With respect to the particular wavelengths desired/claimed in claim 4, although the secondary reference to Maeda et al does depict the blue wavelength, it uses an infrared wavelength. Nevertheless, the acknowledged prior art uses a standard wavelength for the cd environment.

It would have been obvious to modify the references as relied above as stated in paragraphs 9 or 10 and further modify them with the acknowledged prior art and duplication ability as well as the particular wavelength selection, motivation is to provide for separate collimating lenses and increase flexibility.

Similarly, claim 15 recites the limitations of claim 3 and fall as well for the reasons stated above with respect to claim 3.

12. Claims 5, 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 4 above, and further in view of Kajiyama et al.

With respect to claims 8 –11, Kajiyama et al teaches these in the holographic lens environment, see figures 7 – 9 for instance.

With respect to claim 5, such is considered merely an optimization of the holographic lens, with no unexpected results occurring from such a selection.

It would have been obvious to modify the references as relied above with respect to claim 4 and modify them with the above holographic lens teachings from Kajiyama et al, motivation is to provide for the appropriate holographic lens to project the light beams onto the record medium.

13. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over either the acknowledged prior art or Finegan each further considered with Maeda et al or considered with Maeda et al and Kajiyama et al.

Either the acknowledged prior art or Finegan disclose the base system of projecting two laser beams onto a recording medium. Although two collimating lenses are not depicted, the examiner considers the use of two such elements as an obvious design ability -duplicative of parts – especially in view of the acknowledged prior art (use of a single collimating lens). Maeda et al is relied upon for the

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reasons stated in paragraphs 9 or 10 above. The Maeda et al reference also teaches/discloses the use of a holographic lens in the system as part of the optical system.

Either the spot sizes are identical – inherently provided for – since the elements recited in the claim yield such, or alternatively, as further taught by the Maeda et al & Kajiyama et al combination, the spot size of the projected beam can be varied in accordance with the pattern upon the holographic lens as desired by applicant, e.g., it makes sense to have the projected spot size of the laser beams identical in order to permit proper signal detection by the optical detectors.

It would have been obvious to modify either the acknowledged prior art or Finegan with either Maeda et al or the combination of Maeda et al and Kajiyama in order to have an optical pu with a holographic lens as required, or a holographic lens with the appropriate pattern thereon to yield equal sized spot sizes projected onto the record medium to permit/effect efficient optical detection and or recording/reproducing.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamada et al & Van et al – plural laser sources for projecting light beams onto a record medium. Komma et al & Kim et al – which show holographic lens arrangements in this environment. Dang et al and Chang et al & Kikuchi et al – optic pu arrangements having a multitude of light sources projecting through various optical arrangements onto a recording medium in this environment.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

  
Aristotelis M. Psitos  
Primary Examiner  
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AMP  
June 20, 2002